



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

A

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,436	01/22/2002	Teruko Fujii	2611-0169P	6172
2292	7590	07/26/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			NGUYEN, THANH T	
		ART UNIT		PAPER NUMBER
		2144		

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/031,436	FUJII ET AL.	
	Examiner Tammy T. Nguyen	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 May 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on January 33, 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/23/05.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

*Detailed Office Action*

1. This action is in response to the amendment filed on May 2, 2005
2. Claims 1-12 are pending.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuguchi et al., (hereinafter Mizuguchi) U.S. Patent No. 6,310,885 in view of Canada et al., (hereinafter Canada) U.S. Patent No. 6,301,514.
5. As to claim 1, Mizuguchi teaches the invention as claimed, including a communication method for conducting communication among nodes that form a communication network of bus type by using set communication parameters, the

communication method comprising: a designation step of designating one of said nodes as a master node, designating other nodes as slave nodes, and forming a logical star connection, and a determination step of determining communication parameters between said master node and respective slave nodes (master node 101 and slave node 102 are connected) (A token packet specifying a transmission node and receiving node is output from master node to all nodes, also see col.4, lines 19-26, col.4, line 60 to col.5, line 23); and a communication step of conducting communication between said slave nodes via said master node by using communication parameters determined in the determination step (see col.col.4, line 60 to col.5, line 23). But Mizuguchi does not explicitly teach based on transmission qualities. However, Canada teaches based on transmission qualities ( see col.13, lines 35-45, and col.16, lines 18-49). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Canada into the computer system of Mizuguchi to have transmission qualities because it would have an efficient system that can provide specific functions that can sending data over a communications line.

6. As to claim 2, Mizuguchi teaches the invention as claimed, wherein the communication method further comprising: an alteration step in which said master node monitors communication states between said master node and at least one of said slave nodes and alters successively communication parameters between said master node and said at least one of said slave nodes (see col.5, lines 1-32).

7. As to claim 8, Mizuguchi teaches the invention as claimed, including a communication system for conducting communication among nodes that form a communication network of bus type by using set communication parameters, said communication system comprising: one master node selected from among said nodes (master node 101 of fig. 1); and one or more slave nodes that are nodes other than said master node, said one or more slave nodes logically star-connected to said master node (master node 101 and slave node 102 are connected), each of said one or more slave nodes conducting communication with another node via said master node by using communication parameters negotiated with said master node (A token packet specifying a transmission node and receiving node is output from master node to all nodes, also see col.4, lines 19-26, col.4, line 60 to col.5, line 23). But Mizuguchi does not explicitly teach based on transmission qualities. However, Canada teaches based on transmission qualities ( see col.13, lines 35-45, and col.16, lines 18-49). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Canada into the computer system of Mizuguchi to have transmission qualities because it would have an efficient system that can provide specific functions that can sending data over a communications line.
  
8. As to claim 9, Mizuguchi teaches the invention as claimed, wherein said master node comprises an alteration unit which monitors communication states between said master node and said one or more slave nodes and altering successively

communication parameters between said master node and said one or more slave nodes (see col.col.4, line 60 to col.5, line 23).

9. Claims 3-5, 7, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuguchi et al., (hereinafter Mizuguchi) U.S. Patent No. 6,310,885, Canada et al., (hereinafter Canada) U.S. Patent No. 6,301,514 in view of Basani et al., (hereinafter Basani) U.S. Patent No. 6,718,361.
10. As to claim 3, Mizuguchi teaches the invention as claimed, including a communication method for conducting communication among nodes that form a communication network of bus type by using set communication parameters, the communication method comprising: an initial step of designating a node that would become best in transmission quality when a logical star connection with other nodes were conducted, as a master node based on transmission qualities between nodes, designating other nodes as slave nodes, and star-connecting the nodes logically (fig. 10) (see col.7, lines 1-32); and an alteration step, responsive to existence of such a node that would become best in transmission quality when logical star connections (Fig.10)(see col.7, lines 1-37). But Mizuguchi and Canada do not explicitly teach other nodes were conducted in response to connection of a new node or a change of a communication state, of altering said node to a master node and altering a current master node to a slave node. However, Basani discloses other nodes were conducted in response to connection of a new node or change of a communication state (voting

for group leader of fig.5)(see col.5, lines 57 to col.6, lines 35). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Basani into the computer system of Mizuguchi to have other node were conducted in response to connection of a new node of change of a communication state because it would have provided nearness, processor speed, and liability or CPU usage.

11. As to claim 4, Mizuguchi teaches the invention as claimed, wherein the alteration step comprises a transfer step of transferring communication parameters among all nodes inclusive of the current master node held by the current master node to a master node after alteration (see col.4, line 60 to col.5, line23).
12. As to claim 5, Mizuguchi teaches the invention as claimed, wherein the alteration step comprises a notice step in which the master node after alteration sends a notice to the effect that its own master node has been altered to the master node, to other nodes (Fig.1) (see col.4, lines 15-38).
13. As to claim 7, Mizuguchi teaches the invention as claimed, including a communication method for conducting communication among nodes that form a communication network of bus type by using set communication parameters, the communication method comprising: a master designation step of designating a node that becomes best in transmission quality between said node and other nodes, from

among all nodes, as a master node (col.10) (see col.7, lines 1-37); a sub-master designation step of designating, for each of said grouped node groups, a node having best transmission qualities with respect to other nodes in its own node group and said master node, as a sub-master node (sub-master node 103, and 105 of fig.1) and a logical connection step of logically star-connecting said sub-master node to said master node and logically star-connecting other nodes in its own node group to said sub-master node (see col.5, lines 2- 47 and col.7, lines 1-44). But Mizuguchi and Canada do not explicitly teach a grouping nodes each have favorable transmission qualities. However, Basani teaches grouping nodes each have favorable transmission qualities (nodes group 24a and 24b of fig.1) (see col.5, lines 32-55 and col.6, lines 19-35). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Basani into the computer system of Mizuguchi to have grouping nodes each have favorable transmission qualities because it would have efficient system for transmission of data files and highly scalable and avoids the unreliability, and latency.

14. As to claim 10, Mizuguchi teaches the invention as claimed, including the communication system for conducting communication among nodes that form a communication network of bus type by using set communication parameters, wherein each node comprises a processing unit, and if its own node is designated as a master node logically star-connected to other nodes and if there exists such a node that would become best in transmission quality (see col.7, lines 1-37), then said processing unit

conducts processing of ordering alteration of said node to a master node and transferring communication parameters among all nodes currently held to a master node after alteration (A token packet specifying a transmission node and receiving node is output from master node to all nodes, also see col.4, lines 19-26, col.4, line 60 to col.5, line 23). But Mizuguchi and Canada do not explicitly teach other nodes were conducted in response to connection of a new node or a change of a communication state. However, Basani discloses other nodes were conducted in response to connection of a new node or change of a communication state (voting for group leader of fig.5)(see col.5, lines 57 to col.6, lines 35). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Basani into the computer system of Mizuguchi to have other node were conducted in response to connection of a new node of change of a communication state because it would have provided nearness, processor speed, and liability or CPU usage.

15. As to claim 11, Mizuguchi teaches the invention as claimed, wherein each node further comprises a notice unit which sends a notice to the effect that its own node has been designated as the master node, to other nodes, when its own node is designated as said master node after alteration (see col.4, lines 19-67).
  
16. As to claim 12, Mizuguchi teaches the invention as claimed, including a communication system for conducting communication among nodes that form a communication network of bus type system comprising: a master node that is selected

from among all nodes and that is best in transmission quality with respect to other nodes (master node 101 of fig. 1); having best transmission qualities with respect to other nodes in its own node group and said master node, said sub-master node being logically star-connected to said master node (sub-master node 103, and 105 connect to master node 101 of fig. 1); and slave nodes logically star-connected in each node group to said sub-master node (see col.5, lines 2- 47 and col.7, lines 1-44). But Mizuguchi and Canada do not explicitly teach a grouping nodes each have favorable transmission qualities. However, Basani teaches grouping nodes each have favorable transmission qualities (nodes group 24a and 24b of fig.1) (see col.5, lines 32-55 and col.6, lines 19-35). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Basani into the computer system of Mizuguchi to have grouping nodes each have favorable transmission qualities because it would have efficient system for transmission of data files and highly scalable and avoids the unreliability, and latency.

### *Conclusion*

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(571) 272-3929**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, David Wiley, may be reached at **(571) 272-3923**.

*TTN*  
July 19, 2005



DAVID WILEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100